



USAID
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BANGLADESH

GLOBAL CLIMATE CHANGE

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USAID's climate change activities in Bangladesh seek to improve energy sector performance through efficient energy use and to improve management of natural resources such as water and tropical forests. The USAID Mission's environment program has strengthened the capacity of the Bangladesh government and local nongovernmental organizations to carry out these improvements.

Background. Bangladesh is a low-lying riverine country located in South Asia. With a population of approximately 133 million, it is the most densely populated agricultural country in the world. The floodplains of Bangladesh represent one of the world's most important wetlands – home to hundreds of species of fish, plants, and wildlife, and a critical habitat for thousands of migrating birds. The Sunderbans in southwest Bangladesh is the world's largest single mangrove forest and is recognized as a World Heritage Site.

Pressures on Bangladesh's biological resources are intense and growing, due to poor management of aquatic and terrestrial resources, population growth, overexploitation, indiscriminate and unplanned development of infrastructure, and agricultural expansion onto marginal lands. The overall goal of USAID's environment program in Bangladesh is to strengthen the ability of the government of Bangladesh and the local nongovernmental organizations working in this area to improve environmental and natural resources management. Preservation of resources such as forests assists in the mitigation of climate change, as does energy sector reform. The energy sector in Bangladesh is mostly publicly owned and managed, exhibiting very high levels of inefficiency that increase greenhouse gas emissions. To reduce these emissions, USAID encourages the use of natural gas, a source of clean energy, and the reduction of energy demands through more efficient energy use.

Sector-Specific Climate Change Activities. The core global climate change program of USAID/Bangladesh is implemented under improving the performance of the energy sector, as well as the management of open water and tropical forest resources.

Addressing Potential Climate Impacts Upon Water Resources and Ecosystems. As a follow-up to the U.S. Country Studies Program, whereby a climate change vulnerability assessment was completed for Bangladesh, USAID supported the development of Bangladesh's National Climate Change Action Plan and National Communiqué, which contribute to the goals of the United Nations Framework Convention on Climate Change.

USAID/Bangladesh also administers the Management of Aquatic Ecosystems through Community Husbandry (MACH) program. MACH promotes comanagement of natural resources with the overall goal of promoting conservation and ecologically sound management of wetland resources. Partners in MACH have developed significant technical and managerial capacities to help protect fragile ecosystems from the adverse

USAID's partners in climate change activities in Bangladesh include*:

- Arannyak Foundation
- Dhaka Electric Supply Company (DESCO)
- Grameen Shakti (subsidiary of the Grameen Bank)
- Petrobangla
- Rural Electrification Board (REB)
- United Nations Development Program (UNDP)
- U.S. Department of Energy (DOE)
- U.S. Environmental Protection Agency (EPA)
- U.S. Geological Survey (USGS)
- World Bank/Global Environment Facility (GEF)

* Because partners change as new activities arise, this list of partners is not comprehensive.

effects of global climate change. MACH has brought 9,336 hectares of freshwater wetland under conservation and has established 64 permanent wetland sanctuaries managed by 37 local resource management organizations with USAID support.

Climate Impact Reduction – Enhanced Carbon Stock Cobenefit. To complement MACH, a new bilateral activity, Comanagement of Tropical Forest Resources in Bangladesh, was recently launched. The tropical forest conservation activity focuses on: (1) the development of a comanagement planning and implementation model for selected protected areas (national park, wildlife sanctuary, and game reserve); (2) interventions and investments for improved ecosystems management; (3) the encouragement of a positive policy environment for comanagement; and (4) the creation of a conservation constituency in Bangladesh. In addition to developing a pragmatic work plan, the project team has completed the socioeconomic, biological, and physical reconnaissance in four initial protected area sites. This activity will contribute significantly to increasing the carbon stock and thereby to global climate protection.

The Arannyak (Bangladesh Tropical Forest Conservation) Foundation, which was authorized in September 2000 pursuant to the Tropical Forest Conservation Act, has been established. Arannyak, with a mandate to administer a small grants program to catalyze tropical forest conservation, will be a strategic partner to USAID's activity in forest comanagement. In order to make the Foundation operational, USAID formulated a strategic plan for the Foundation and proposed site selection criteria. USAID also developed a capacity-building training program and a public awareness strategy.

Energy Efficiency and Sourcing of Clean and Renewable Energy. Through advocating the “unbundling” or transfer of state monopoly assets to specialized transmission and distribution companies, USAID is improving the performance of the national power generation and distribution system and reducing system losses by ensuring greater accountability and transparency.

Continued assistance in rural electrification has further strengthened the overall Bangladesh rural electrification program, which is based on the U.S. rural electric cooperative model. This assistance to the Rural Electrification Board has resulted in the increase of in-country legal power connections. Total USAID assistance amounts to \$210 million to date, with leveraged funding of more than \$1 billion. Moreover, USAID has initiated two full-fledged programs related to technical assistance and capacity building and continues to educate the public and the media about energy issues and development implications.

With Grameen Shakti, a subsidiary of the Grameen Bank, USAID is working to increase microlending capacity in the renewable energy sector, thus providing examples of and opportunities for the

For more information on USAID's climate change activities in Bangladesh, visit USAID/Bangladesh's Mission Web site at:

- <http://www.usaid.gov/bd/>

climate-friendly sourcing of energy. In this way, USAID is able to facilitate the use of photovoltaic energy in the most remote sections of the country where conventional grid electricity will not reach in the foreseeable future.

To assist Bangladesh in reaching a consensus on how best to use its natural gas resources, USAID promotes and funds a substantial joint Petrobangla/U.S. Geological Survey effort to assess the country's natural gas potential. USAID furthermore funds a variety of other seminars and workshops on the use of natural gas resources and also sponsors a study analyzing the financial and technical feasibility of natural gas-generated power exports to India. This contentious and politically sensitive proposal is beginning to be openly debated in a more economically rational, well-informed manner than previously.